2200 US Highway 27 South
Richmond, IN 47374
Tel: 1-800-52 ALPHA
Web: www.alphawire.com

Customer Specification

PART NO. M9748040

Construction

	Diameters (In)	
1) Component 1	4 X 1 PAIR	
a) Conductor	18 (7/.0152) AWG Bare Copper	0.046
b) Insulation	0.016" Wall, Nom. PVC	0.078
(1) Print	ALPHA NUMERIC NUMBERS - WHITE CONDUCTOR ONLY (ONE-1) ALTERNATE INVERTED 2"SPACING(CTR. TO CTR.)	
(2) Color Code	Alpha Wire Color Code BW	

Pair	Color	Pair	Color	Pair	Color
1	BLACK-WHITE#1	3	BLACK-WHITE#3		
2	BLACK-WHITE#2	4	BLACK-WHITE#4		

c) Pair	2/Cond Cabled Together	
(1) Twists:	5.3 Twists/foot (min)	
Individually Applied:		
d) Shield:	Foil Free Alum/Mylar Tape, 25% Overlap, Min.	
(1) Foil Direction	Foil Facing In	
(2) Drain Wire	20 (7/28) AWG Tinned Copper	
2) Component 2	1 X 1 COND	
a) Conductor	22 (7/30) AWG Bare Copper	0.030
b) Insulation	0.016" Wall, Nom. PVC	0.062
(1) Color(s)		

Cond	Color	Cond	Color	Cond	Color
1	ORANGE				

3) Cable Assembly	5 Components Cabled	
a) Twists:	2.4 Twists/foot (min)	
b) Orientation:	Components to be arranged from INSIDE LAYER to OUTSIDE LAYER	
c) Core Wrap	Clear Mylar Tape, 25% Overlap, Min.	
4) Shield:	Alum/Mylar Tape, 25% Overlap, Min.	
a) Foil Direction	Foil Facing In	
b) Drain Wire	20 (7/28) AWG Tinned Copper	
5) Jacket	0.053" Wall, Nom.,PVC	0.459 (0.478 Max.)
a) Color(s)	BLACK	
b) Ripcord	1 End 810 Denier Nylon	
c) Print	ALPHA WIRE-* P/N M9748040 4PR 18 AWG 1C 22 AWG SHIELDED EXXXXX (UL) TYPE PLTC/ITC 105C SUN RES OR CL3 105C OR C(UL) CMG 105C FT4 CE ROHS * = Factory Code *[Note: Product may have c(UL) or CSA markings depending upon plant of manufacture.]*	

Applicable Specifications

1) UL	CL3	105°C
	PLTC	105°C
	ITC	105°C
	SUN RES	
2) CSA International	C(UL) TYPE CMG	105°C
	FT4	
3) CE:	EU Low Voltage Directive 2014/35/EU	

Environmental

1) CE: EU Directive 2011/65/EU(RoHS2), EU Directive 2015/863/EU (RoHS3):	
	This product complies with European Directive 2011/65/EU (RoHS Directive) of the European Parliament and of the Council of 8 June 2011 and the amending Directive 2015/863/EU of 4 June 2015 . No Exemptions are required for RoHS Compliance on this item.
2) REACH Regulation (EC 1907/2006):	
	This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item.
3) California Proposition 65:	This product may contain substances known to the State of California to cause Cancer or Reproductive Harm, but is exempt from labeling based on the Consent Judgement. See the Alpha Wire website for more information.

Properties

Physical & Mechanical Properties	
1) Temperature Range	-20 to 105°C
2) Bend Radius	10X Cable Diameter
3) Pull Tension	151 Lbs, Maximum
4) Sunlight Resistance	Yes
Electrical Properties	(For Engineering purposes only)
1) Voltage Rating	300 V_{RMS}
2) Component 1	
a) Mutual Capacitance	48 pF/ft @1 kHz, Nominal
b) Ground Capacitance	86 pF/ft @1 kHz, Nominal
c) Characteristic Impedance	44 Ω
d) Inductance	0.18 µH/ft, Nominal
e) Conductor DCR	6.7 Ω/1000ft @20°C, Nominal
f) Component Shield DCR	8.3 Ω/1000ft @20°C, Nominal
g) OA Shield DCR	7.5 Ω/1000ft @20°C, Nominal
3) Component 2	
a) Ground Capacitance	94 pF/ft @1 kHz, Nominal
b) Inductance	0.044 µH/ft, Nominal
c) Conductor DCR	15.3 Ω/1000ft @20°C, Nominal
d) OA Shield DCR	7.5 Ω/1000ft @20°C, Nominal

Other

Packaging	Flange x Traverse x Barrel (inches)
a) 1000 FT	24 x 14 x 12 Continuous length
b) 500 FT	18 x 14.25 x 8 Continuous length
c) 100 FT	12 x 5.94 x 5 Continuous length
d) Bulk(Made-to-order)	
	[Spool dimensions may vary slightly]

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EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: M9748040

M9748040, RoHS-Compliant Commencing With 1/1/2006 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3). This product also complies with UK - RoHS. The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item**. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

Substance	**Maximum Control Value**
Lead	0.1% by weight (1000 ppm)
Mercury	0.1% by weight (1000 ppm)
Cadmium	0.01% by weight (100 ppm)
Hexavalent Chromium	0.1% by weight (1000 ppm)
Polybrominated Biphenyls (PBB)	0.1% by weight (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE) , Including Deca-BDE	0.1% by weight (1000 ppm)
Bis(2-ethylhexyl) phthalate (DEHP)	0.1% by weight (1000 ppm)
Butyl benzyl phthalate (BBP)	0.1% by weight (1000 ppm)
Dibutyl phthalate (DBP)	0.1% by weight (1000 ppm)
Diisobutyl phthalate (DIBP)	0.1% by weight (1000 ppm)

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Authorized Signatory for the Alpha Wire:



Dave Watson, Director of Engineering 5/31/2024

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